REMARKS/ARGUMENTS

Claims 15-19 and 28 will be pending upon entry of this amendment. Claims 20 to 27 have been cancelled herein without prejudice to filing a divisional application. Claims 15-19 and 28 have been amended. Support for the amendments is found, for instance, on page 7, lines 16-34.

Priority

The specification has been amended on page 1 to recite the patent number of the earlier filed application to which priority benefit is claimed.

Specification

The specification was object to for reciting sequences without sequence identifiers. The specification has, therefore, been amended on pages 34, 36, 43 and 45 to recite the appropriate sequence identifiers.

Information Disclosure Statement

An Information Disclosure Statement was filed November 19, 2001. It is noted that a signed copy of the Form 1149 has not been enclosed with the action mailed October 26, 2004. The Examiner is asked to provide the signed Form 1449 with the next action.

Response to Rejections under 35 U.S.C. 102

Claims 15 to 19 stand rejected as being either anticipated by, or obvious over, Tenney *et al.*, Boehmer *et al.*, and Smith *et al.* The Examiner asserts that the claims are directed to a product. It is respectfully submitted that all claims of the present application in fact relate to methods; they each define a method of assaying (i.e. detecting or measuring) the ability of a substance to block the interaction between UL8 and POL and recite active,

positive steps. It would appear that the Examiner has understood the term "assay" to mean a physical test apparatus rather than the actual assay *per se*. Applicant has amended Claims 15 to 19 and 28 to refer to "An in vito assay method" to further clarify that the assay referred to and claimed in the present application is a method.

Applicant believes that the above amendment should overcome the Examiner's rejection to all claims as the method steps set out in the claims must be taken into account. However, for completeness, comments on the Examiner's individual rejections are provided.

Claims 15-16 and 18 were rejected under 35 U.S.C. 102(b) as being anticipated by Tenney *et al.* (J. Biol. Chem. 269(6): 5030-5035 (1994)).

Tenney *et al.* discloses the combination of UL8 and UL5/52 in the formation of a helicase-primase complex and neither discloses nor contemplates the association between UL8 and POL (UL30). UL52 is not POL but rather one of the three proteins that is in the helicase-primase complex. Claim 15 of the application in suit relates to a method which requires the steps of providing POL and measuring the ability of a substance to inhibit the interaction of POL and UL8. These steps are not taught nor suggested in Tenney *et al.* Therefore, Claim 15 is novel over that disclosure. Claims 16 and 18 depend from Claim 15 and are therefore also novel over Tenney *et al.*

Claims 15-16 and 18-19 were rejected under 35 U.S.C. 102(b) as being anticipated by Boehmner *et al.* (PNAS, Vol 90, 8444-8448, (1993)).

Boehmer *et al.* relates to the interaction between UL9 and ICP8. UL9 is an origin-binding protein. ICP8 is a single-stranded DNA binding protein. Contrary to the

Examiner's assertion, neither of these proteins is a homologue of either UL8 or POL, as defined in the specification (see p. 2, lines 28-34 and page 7, lines 9-11). Boehmer *et al.* does not teach or suggest an interaction between UL8 and POL. The reference does not disclose an assay to detect inhibition of such an interaction. Boehmer *et al.* consequently does not disclose the method as claimed. Claims 15-16 and 18-19 are therefore novel over Boehmer *et al.*

Response to Rejections under 35 U.S.C. 103

Claims 15 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Tenney *et al.* and Smith *et al.* (Journal of Virology, 1995, pages 1734-1740).

As discussed above, Tenney *et al.* does not demonstrate an interaction between UL8 and POL. Smith *et al.* also does not teach or suggest such an interaction. The Examiner refers to Table 1 of Smith *et al.* as showing an association between UL102 and UL54, which are homologues of UL8 and POL. Applicant submits that this table merely lists a number of genes identified as significant in relation to origin-dependent DNA replication in HCMV and related herpesviruses. The table teaches no physical interaction between the UL8 and POL proteins (i.e. HMCV UL54 and UL102). The document also fails to describe any features of a method to monitor for inhibition of such an interaction.

One of ordinary skill in the art would not combine the teachings of Tenney *et al.* and Smith *et al.* to arrive at the claimed invention. Smith *et al.* merely discloses a number of genes related to herpesvirus replication, particularly concentrating on UL102. Tenney *et al.* merely discloses the association between UL8 and UL5/52. Starting from Tenney *et al.* there would be no reason for one of ordinary skill to replace UL5/52 with the unrelated protein POL (UL30), especially given that no interaction between UL8 and POL is identified in either Tenney *et al.* or Smith *et al.* This applies notwithstanding the

passing reference to the gene encoding UL30 in Smith *et al.* Furthermore, neither document would provide the motivation to develop an assay method to monitor for inhibition of this interaction.

The present invention relates to an assay method for the identification of substances which can inhibit a key protein/protein interaction. The method is not taught or suggested in the prior art.

Applicants submit that the present invention, as claimed in amended Claims 15-19 and 28, is novel and nonobvious over the asserted prior art. The claims remaining in the application are in condition for allowance. An early action toward that end is earnestly solicited.

Respectfully submitted,
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